United States
Environmental Protection
Agency

Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington

Site File AR

EPA

June 13, 1990

Reply To
Attn Of: HW-113

Jack Kendrick, President
Bunker Limited Partnership
Minerals Corporation of Idaho
Bunker Hill Mining Company (U.S.), Inc.
P.O. Box 29
Kellogg, Idaho 83837

Re: Plans Required Under the 1989 EPA Administrative Unilateral Order No. 1089-10-21-106

Dear Mr. Kendrick:

Enclosed please find the Environmental Protection Agency's (EPA) comments on the four remaining plans (Asbestos Removal, PCB Management and Disposal, Monitoring and Decontamination, and Quality Assurance) required under the 1989 Administrative Unilateral Order ("the Order") for the Smelter Complex within the Bunker Hill Superfund site. As stated in EPA's May 14, 1990, letter from Charles E. Findley, if there has been no commitment to a demolition plan by June 13, the four remaining revised plans, incorporating EPA comments, are due on July 13, 1990.

As you know, the Order was issued to Gulf Resources & Chemical Corporation (Gulf) and Bunker Limited Partnership (BLP) and its related entities, and both are jointly and severally liable for the implementation of all requirements set forth by the Order. EPA expects comprehensive and cohesive revised plans addressing EPA comments on the previously submitted plans, as well as all concerns addressed in the Order.

EPA is concerned that Bunker Limited and Gulf are not adequately complying with the requirements of the Unilateral Order. The submission of these plans is of course the first necessary step to implementing the cleanup of asbestos and PCBs at the smelter. Regardless of whether you decide to develop and implement a demolition plan at this time, the plans must address long-term maintenance and removal of the structures and materials at the complex.

In the event the revised plans are unacceptable, EPA will consider issuing a determination that Bunker Limited and Gulf are in violation of the Order and thus subject to penalties of up to $25,000 per day. EPA is hopeful that the revised plans will be satisfactory and will contact you after our review is complete.

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In the meantime, if you have any questions regarding this matter, please contact me at (206)442-2102.

Sincerely,

Sally Martyn
Superfund Site Manager

Enclosures

cc: Gene Baker-Gulf Resources & Chemical Corporation
Dan Meyer-Minerals Corporation of Idaho
Rob Hansen-IDHW

ASBESTOS REMOVAL PLAN

Comments

1. The submitted Plan fails to establish any sort of long-term plan for dealing with the asbestos containing material (ACM) throughout the Complex. The Order requires that the Asbestos Removal Plan address all asbestos contamination response actions not covered under Paragraph 46. Although the most severely damaged asbestos (located outside of the complex buildings) was removed under the immediate requirements of the Order, a large quantity of damaged and deteriorated ACM still remains within the Complex. This material and the facility will continue to deteriorate. Adequate control of the situation requires long-term planning and managing of the ACM. The revised Plan must address these concerns.

2. A complete list of all the ACM located throughout the facility must be compiled. This list should, at a minimum, describe the exact location and approximate quantity of the ACM, accompanied by results from representative sampling. A complete list of ACM is crucial to the management of the asbestos and the development of a removal plan.

3. All ACM should be prioritized and scheduled for removal. The schedule should, at a minimum, take into consideration such items as the extent of damage, the percentage content of ACM, and the potential for exposure to workers and the public. In addition, the schedule should include specific dates for removal, quantity of material to be removed, a list of person(s)/contractors conducting the removal, removal procedures, and the location(s) of the disposal site(s) for any ACM.

4. The Plan must include a detailed description of the health and safety concerns specific to the removal of ACM including, but not limited to, a detailed discussion of the personal protective equipment necessary for work in and around asbestos and the health and safety training required by OSHA.

PCB MANAGEMENT AND DISPOSAL PLAN

Comments

1. A comprehensive PCB Management and Disposal Plan is required under the paragraphs of the Order. The Order calls for, at a minimum, a schedule for the proper testing, labeling, and disposal of all transformer switches, capacitors and other electrical devices, storage containers containing PCBs and any PCB contaminated material, within the Bunker Hill Complex. Specifically, the Order requires a survey of all PCB containing devices to determine if any leaks or spills of dielectric fluid have occurred and the identification of all PCB devices, containers, and PCB-Contaminated Transformers whose integrity has been threatened.

2. The Plan must provide assurance of proper storage and disposal of any electrical devices containing PCBs or any PCB contaminated material.

3. The Plan must describe the procedure for determining the extent of contamination, the decontamination and verification sampling procedure, and the laboratory to be used for analysis of any device containing PCBs or PCB contaminated material.

QUALITY ASSURANCE PLAN

Comment

The Plan does not meet the intent of the Order or EPA's criteria for a quality assurance plan. Enclosed please find literature prepared by the EPA Risk Reduction Engineering Laboratory, Cincinnati, Ohio, and a Quality Assurance Project Plan Review Check List to guide you in revising your Quality Assurance Plan. Bruce Woods of EPA Region 10 Quality Assurance Office, (206)442-1193, is available to discuss EPA's expectations for a quality assurance plan.

MONITORING AND DECONTAMINATION PLAN

Comments

1. The submitted Plan addresses a very limited scope of equipment or material. If MCI wishes to resubmit the revised Plan that is limited to the equipment and material listed below, it is EPA's understanding that only this equipment and material will be removed from the Complex. Removal of any equipment or material not addressed in the Plan will be considered a violation of the Order and subject the Respondents to penalties as set forth by the Order.

   Equipment and material covered by original, February 13, 1990, Monitoring and Decontamination Plan:

   ZINC PLANT
   1. Dryer and associated equipment
   2. Four belt feeders and bins
   3. Air supply fan
   4. Hummer screen
   5. 10' Ball Mill in #5 Roaster building

   SMELTER
   1. Large jaw crusher
   2. Two conveyer belts
   3. Impactor
   4. Dryer and associated equipment
   5. Two steel buildings

   PHOS PLANT
   1. Two dryers
   2. Screen and miscellaneous equipment

2. All materials, metallic or non-metallic, must be decontaminated prior to off-site movement. While high pressure washing may adequately remove contaminants from metallic surfaces, non-metallic surfaces may not be sufficiently cleaned by this method. The plan must include the decontamination and confirmatory sampling procedures for such items. In addition, although EPA understands that some items cannot be decontaminated without destroying their economic value, the Plan must include the handling procedure for these items.

3. It must be understood that MCI is ultimately responsible for contractor and subcontractor compliance with approved plans. In addition, the Order calls for, "A description of the procedures to ensure that daily records shall be maintained, and available upon verbal request of U.S. EPA, IDHW, or local fire department employees or authorized representatives, <u>for each individual work crew</u> involved in salvage, removal, or demolition activities at the facility. These records shall include building location, location of work

within the building (level or floor, proximity to major process equipment, etc.), time at which work started and ended, and an identification of the type of work being done."

4. When describing the procedure for dealing with asbestos-containing material (ACM), reference should be made to the Asbestos Removal Plan or appropriate sections of a demolition plan. If friable asbestos is to be disturbed by salvage, removal, or demolition activities, EPA must be notified prior to the commencing of the work and all EPA asbestos NESHAP and OSHA worker health and safety requirements must be met.

5. The sampling procedure employed after decontamination of equipment and materials must be described in detail. At a minimum, this must include the criterion used for determining the type and number of samples to be taken, (i.e., based on item type and surface area, etc.) and a description of the record keeping system to be employed.

6. If any building requires structural alterations prior to the removal of equipment or material, a structural engineer must be present to ensure that the structural integrity of the building is not compromised.

7. An inspection of all work areas should be conducted before any sampling activities, decontamination procedures or demolition begins to determine the level of protective clothing necessary.

8. If a demolition plan, as described in the May 14, 1990, letter from Charles E. Findley is not forthcoming, EPA strongly suggests that a matrix table including equipment and material classifications and decontamination procedures be developed. The table should include, at a minimum:
    a. Item or item classification to be decontaminated and removed
    b. Known/suspected contaminants and sources
    c. Sampling method and results
    d. Analytical methods and results
    e. Item use (i.e., reuse, salvage, disposal)
    f. Physical description of item (i.e., weight, surface area)
    g. Description of item function (i.e., boiler, crusher, etc.)
    h. Description of location with reference made to a map
    i. Decontamination procedures
    j. Purchaser
    k. Type of transportation to be used
    l. Future use (potential or verified)

Quality Assurance Project Plan Review Check List

Have the following items been appropriately incorporated into the QA Project Plan or if not, has rationale for their omission been given?

I) Title Page

1 - Title of Project
2 - Names(s) of Principal Management Personnel
3 - Appropriate Approval Lines
4 - Plan Prepared in Document Control Format

II) Table of Contents

1 - Include List of All Plan Required Elements and Page Numbers?
2 - Include Distribution List
3 - Include List of Appendices

III) Project Description

1 - Statement of Objectives (Purpose)
2 - Overview of Scope (Activities)
3 - Specific Schedule of Project Activities (start, completion, etc...)
4 - Background Information
5 - Brief Statement of Data Usage
6 - Description of Sampling Network Design and Rationale
    a) Design of Overall Monitoring Systems
    b) Specific Location of Sampling Sites
    c) Justification of Overall Design
7 - Sampling Matrices
8 - Parameters to be Measured
9 - Frequency of collection
10 - Field and Lab Measurements
11 - Procedures for Filtered/Unfiltered Groundwater, or Other Similar Fractions/Sub-Groups Specified and Included in Parameter Definition
12 - Type of Sample(s) (grab, composite, etc...)

IV) Project Organization and Responsibility

1 - Identify Key People Responsible for:
   a) Overall QA/QC
   b) Sampling Operations and Sampling QC
   c) Laboratory Analyses and Laboratory QC
   d) Data Processing and Data Processing QC
   e) Data Review
   f) Performance and System Audits
2 - If CLP is Used, Identify Key People Responsible for:
   a) Final Data Review of CLP RAS Data
   b) Preparation and Final Review of SAS Requests
   c) Final Data Review of CLP SAS Data
   d) Review and Confirmation of any Tentatively Identified Organic Compounds
3 - List of Phone Numbers and Addresses
4 - Line of Authority for all Referenced Organizations
   Demonstrated in an Organizational Chart
5 - Personnel Qualifications Given or Referenced (Training, Experience, Resumes)
6 - Is Organizational Structure Appropriate to Accomplish
   QA Objectives for the Project?

V) QA Objectives in terms of PARCC Factors

1 - Statement of Intended Data Usage
2 - Overall Quantitative Data Quality Objectives for Precision and Accuracy
   a) Defined the following for Each Matrix and Parameter
      1) Frequency of QC Effort
      2) Accuracy (matrix spikes, surrogate spikes, reference samples)
      3) Precision (replicates, duplicates)
      4) Method Detection Limits and Reporting Units/Matrix/Parameter
   b) Quantitative Limits for Each QC Sample Identified
   c) Field and Laboratory QC Samples Identified
   d) Distinction for Bias and Variability
      between the "Total" System and the Laboratory Analyses
3 - Define and Quantitate Completeness Data Quality Objectives
4 - Define Representativeness for Project (Sampling Points, Media and Techniques)
5 - Define Comparability for Project (Reporting Units/Matrix/Parameter given above)
6 - Are Interrelationships between Number of Samples needed, Analytical
   Procedures, Internal QC and Data Assessment Reflected in DQOs?

VI) Sampling Procedures

1 - Document Detailed Sampling Procedures for Each Matrix and Parameter
   including the Following Elements:
   a) Specific Sample Collection Methods
   b) Description of Sampling Devices
   c) Containers, Reagents and Preservatives (Type and Source)
   d) Holding Times
   e) Transport and Storage
   f) Preparation of Sampling Equipment (Before and During Field Activities)
   g) Blanks
   h) Record Keeping Requirements
   i) Coordination with Laboratory
2 - Detail Rationale for Sample Site Selection (Investigative Objectives,
   Site Background, Analysis of Existing Data, Specific Site Selection
   Techniques or Guidance)

VII) Sample Custody

1 - Does the Plan Address:
   a) Field Custody Procedures
   b) Transfer of Custody and Shipment
   c) Receipt of Samples
2 - Include examples of Forms, Sample Tags, Labels, Seals, Records, etc...
3 - Address Evidentiary Considerations
4 - Do Non-CLP Laboratory Custody Procedures:
   a) Identify Sample Custodian?
   b) Provide for Custody Record within the Laboratory?
   c) Specify Procedures for Sample Handling, Storage, Dispersement for Analysis and Disposal?

VIII) Calibration Procedures and Frequency

1 - Methods/Procedures to Assure Optimal Performance of Field and Laboratory Equipment (Include Frequency)
2 - Require Equipment Log Books to Record Usage, Maintenance, Calibration and Repair
3 - Calibration Standard Usage (source and traceability procedures)
4 - Does Calibration Documentation Require Calibration Dates, Identification of Standards, Personnel Performing Calibration, Calibration Results, and Corrective Actions Taken?

IX) Analytical Procedures

1 - Analytical Procedures Referenced or Included as SOPs (Describing all Procedural Steps and Options)
2 - Criteria for Analytical Method Selection
3 - Does Method choice meet regulatory or CERCLA requirements?
4 - Does Plan Indicate that Laboratory Capabilities meet Analytical Requirements?
5 - Methods Include Specific QC Requirements (Type, Frequency, Acceptance, etc...)

X) Data Reduction, Validation and Reporting

1 - Reduction
   a) Units Specified for All Determinations
   b) Reference or Include Equations/Procedures used to Calculate Concentrations
   c) Describe Types of Records Maintained (Include Storage Location)
   d) Procedures for Data Transfer to Forms, Reports, etc...
   e) Procedures for Transcription Proofing and Cross-Calculation Checks
   f) Procedures for Handling Blank Results
2 - Validation
   a) Define Function and Scope for Validation
   b) Validation Techniques Presented and Summarized
   c) Acceptance or Rejection Criteria in Uniform and Consistent Manner
   d) If CLP, is there Appropriate use of Functional Guidelines Review?
3 - Reporting
   a) Reporting Scheme from Collection of Raw Data through Storage
   b) Record Keeping Requirements for Field and Laboratory Notebooks
   c) Identify Key Individuals Who Handle or Report Data
   d) Examples of Forms and Reports
   e) Description of Exactly What Will be Reported (QC Results, etc...)

XI) Internal Quality Control Checks and Frequency

1 - Description of Procedures for Field and Lab QC Checks
2 - Description of Protocols for Each Parameter/Matrix (spikes, blanks, etc...)
3 - Acceptance Criteria for Each QC Check
4 - Frequency of QC Checks
5 - Distinction Between "Total" and Lab Bias/Variability for Each QC Check
6 - Are Procedures used to Assess Internal QC Checks Consistent with the SOPs used to Assess Precision and Accuracy?

XII) Performance and System Audits and Frequency

1 - Audits Addressed for Both Field and Lab Activities?
2 - Identify Who will Conduct the Audits
3 - Description of Protocol Used for Audits
4 - Define the Acceptance Criteria
5 - Describe the Distribution of Audit Reports
6 - Audit Schedule in Place

XIII) Preventive Maintenance Procedures and Schedules

1 - Schedule of Important Tasks that Minimize Downtime
2 - Critical Spare Parts List

XIV) Specific Routine Procedures Used to Assess Data Precision, Accuracy and Completeness of Specific Measurement Parameters

1 - Protocols for Monitoring Completion of DQO Requirements
2 - Equations Used to Calculate Precision, Accuracy and Completeness
3 - Methods Used to Gather Information for Precision and Accuracy Calculations

XV) Corrective Action

1 - Include a Scheme to:
    a) Identify Defects?
    b) Trace Defects to Source (Why 5 Times)?
    c) Plan and Implement Corrective Action
    d) Document Results of Process
2 - Include Predetermined Limits for Data Acceptability Beyond Which Corrective Action is Required?
3 - Do Procedures Identify Individuals Responsible for Initiating and Approving Corrective Action?

XVI) Quality Assurance Reports to Management

1 - Does Plan Specify Type and Frequency of Reports?
2 - Do Reports Address:
    a) Project Status?
    b) Results of Performance and System Audits?
    c) Data Quality Assessment?
    d) Significant QA Problems and Proposed Corrective Action?
    e) Changes in QAPjP?